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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,605	04/30/2001	Bradford E. Billet	41592-00007	4769

7590 08/04/2004

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EXAMINER

STEVENS, THOMAS H

ART UNIT PAPER NUMBER

2123

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,605

Applicant(s)

BILLET ET AL.

Examiner

Thomas H. Stevens

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-15 were examined.

Title

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "A method and system for forecasting using pattern recognition."

Specification

3. The disclosure is objected to because of the following informalities: The data on pages 25-30 should be within a table or structured in such a fashion. Appropriate correction is required.

Double Patenting

4. Claims 1, 5-10 are provisionally rejected under the judicially created doctrine of double patenting over claim 1, 13-18 of copending Application No. 09846606. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

Claims 1, 5-10 of application 09/846,605 disclose a method of addressing the *occurrence of an event* in a series of steps (or subsets) of specific diseases: outbreaks, animal, human, plant, agriculture, and crops. Claims 1, 13-18 of copending application 09/46606 disclose a series of steps of *predicting* of disease of animal, human, plant,

agriculture, and crops. Furthermore, both application subsets of claim 1 match, grammatically, except for application 09/846,605 subset (f), which discloses a step of addressing an event before it occurs.

At the time the invention, it would have been obvious to one of ordinary skill in the art to deduce that "prediction" and "addressing the occurrence of event" of diseases, in this specific case, are same (e.g., statistics or statistical modeling). This is clearly provisional double patenting.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Regarding claims 1, 11, and 15, the phrase "addressing" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

7. Furthermore, claim 14 is unclear, grammatically, as to the meaning of, "one or more other events depend". Revision is requested.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lowery ("Getting Started in Simulation in Healthcare" (1998)). Lowery teaches details of how to design a stochastic healthcare-modeling program, which encompasses the disease process (title and pg. 34, right column, conclusion, lines 6-9).

Claim 1. A method of addressing the occurrence of event, comprising (pg. 34, right column, conclusion, lines 6-10): (a) identifying a set of formulae (pg. 33, left column, 3rd paragraph, line 2); (b) establishing a pattern based upon said formulae for points in time when an event occurred which pattern is independent of the event (pg. 31, right column, lines 23-27); (c) calculating a set of values based on historical data for said points in time (pg. 32, right column, section 1.2, lines 10-20); (d) comparing said pattern to said set of values at said points in time to establish a relationship (Lowery: pg. 34, right column, lines 13-20 with left column, section 12, Implementation, lines 5-7); (e) extending said relationship into the future to predict an occurrence of said event; and (pg. 34, right column, lines 13-20) (f) addressing the occurrence of said event before it occurs (pg. 34, left column, sections 7, 11, and 12).

Claim 2. The method of claim 1 (pg. 34, right column, conclusion, lines 6-10), wherein said addressing step includes identifying one or variables contributing to the occurrence of said event, and altering the value of said variable in order to change the occurrence or magnitude of said event (pg. 33, section 4, 3rd paragraph).

Claim 3. The method of claim 1 (pg. 34, right column, conclusion, lines 6-10), wherein said addressing step includes preparing for the occurrence of the event (pg. 33, left column, 2nd paragraph, lines 7-17).

Claim 4. The method of claim 3, wherein said addressing step includes taking remedial measures to lessen damage or injury from the event (pg. 33, left column, 3rd paragraph, section 2, lines 1-9).

Claim 13. The method of claim 1 (pg. 34, right column, conclusion, lines 6-10), further comprising adjusting input data (pg. 33, right column, last paragraph) upon which said calculated values are based in order to optimize a desired result related to said occurrence.

Claim 14. The method of claim 1 (pg. 34, right column, conclusion, lines 6-10), wherein said event is a parameter upon which one or more other events depend, and the method of claim 1 is performed for each such parameter.

Claim 15. A method of addressing the occurrence of an event, comprising (pg. 34, right column, conclusion, lines 6-10): (a) developing a set of formulae that are mathematical functions of elapsed time but independent of the occurrence of the event; (b) establishing a mathematical relationship (pg. 34, right column, conclusion, lines 6-10)

between past occurrence of such event and a combination of one or more said formulae involving elapsed time (pg. 34, left column, section 12);(c) extending said relationship into the future to predict an occurrence of the event (pg. 34, right column, 2nd paragraph, lines 13-20); and (d) addressing the occurrence of the event before it occurs (pg. 34, left column, sections 7, 11, and 12).

Claim Rejections - 35 USC § 103

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5-10 are rejected under 35 U.S.C. 103 (a) as unpatentable by Lowery ("Getting Started in Simulation in Healthcare" (1998)), in view of 2000 Annual Report GL-CRSP-IMAS Project Colorado State University (2000).

Lowery teaches details of how to design a stochastic healthcare-modeling program, which encompasses the disease process (title and pg. 34, right column, conclusion, lines 6-9); but doesn't disclose specific diseases. The 2000 Annual Report GL-CRSP-IMAS Project teaches using the Integrated Modeling and Assessment System (IMAS), which conducts geographical remote sensing for a better understanding of the ecosystem.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Lowery to modify GL-CRSP-IMAS Project since it would have been advantageous to establish a base reference of statistical categories to model; with the ability to add, change or remove parameters.

Claim 5. The method of claim 1 (Lowery: pg. 34, right column, conclusion, lines 6-10), wherein said event is disease outbreak (GL: pg. 5, 2nd paragraph, last sentence).

Claim 6. The method of claim 5 (Lowery: pg. 34, right column, conclusion, lines 6-10; GL: PG. 5, 2nd paragraph, last sentence), wherein said disease is animal disease (GL: pg. 11, 2nd paragraph, Animal Disease Assessment)

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Claim 7. The method of claim 5(Lowery: pg. 34, right column, conclusion, lines 6-10; GL: PG. 5, 2nd paragraph, last sentence), wherein said disease is human (GL: pg.11, 3rd paragraph, line 9) disease.

Claim 8. The method of claim 5(Lowery: pg. 34, right column, conclusion, lines 6-10; GL: PG. 5, 2nd paragraph, last sentence), wherein said disease is plant (GL: pg. 13, 4TH paragraph, line 5) disease.

Claim 9. The method of claim 8(Lowery: pg. 34, right column, conclusion, lines 6-10; GL: PG. 5, 2nd paragraph, last sentence; and pg. 13, 4TH paragraph, line 5), wherein said disease is agricultural (GL: pg.13, 2nd paragraph, line 9) disease.

Claim 10. The method of claim 9(Lowery: pg. 34, right column, conclusion, lines 6-10; GL: PG. 5, 2nd paragraph, last sentence; and pg. 13, 4TH paragraph, line 5, wherein said disease is crop (GL: pg.23, paragraphs 1-2), disease.

13. Claim 11 is rejected under 35 U.S.C. 103 (a) as unpatentable by Lowery ("Getting Started in Simulation in Healthcare" (1998)), in view of Sachs ("Interim Report of the Chairman of the Commission on Macroeconomics and Health of the Who" (2000)).

Lowery teaches details of how to design a stochastic healthcare-modeling program, which encompasses the disease process (title and pg. 34, right column,

conclusion, lines 6-9); but doesn't disclose simulation steps. Sachs' teaches the current worldwide catastrophe of disease and premature death with the aid an adult/infant mortality rate simulation tool.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Lowery to modify Sachs since it would have been advantageous to possess a detailed analysis tool for insight to this medical problem.

Claim 11. The method of claim 3(Lowery: pg. 34, right column, conclusion, lines 6-10; and pg. 33, left column, 2nd paragraph, lines 7-17), wherein said addressing step includes at least one of the following: taking measures to avoid said disease outbreak, preparing medical treatment for victims of said disease outbreak (Sachs: pg. 70), increasing production, applying pesticides, hedging against crop shortages, and arranging for substitute food supplies.

14. Claim 12 is rejected under 35 U.S.C. 103 (a) as unpatentable by Lowery ("Getting Started in Simulation in Healthcare" (1998)), in view of Sachs ("Interim Report of the Chairman of the Commission on Macroeconomics and Health of the Who" (2000)) and in further view of Brown (U.S Patent 5,956,501 (1999)).

Lowery teaches details of how to design a stochastic healthcare-modeling program, which encompasses the disease process (title and pg. 34, right column, conclusion, lines 6-9); but doesn't disclose simulation steps or methods of administering other treatments. Sachs' teaches the current worldwide catastrophe of

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disease and premature death with the aid an adult/infant mortality rate simulation tool; while Brown teaches methods of predicting the effects of patient self-care actions (abstract).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Lowery to modify Sachs and Brown since it would have been advantageous to possess a detailed analysis tool for insight to this medical problem while, simultaneously, providing temporary solutions.

Claim 12. The method of claim 11(Lowery: pg. 34, right column, conclusion, lines 6-10; and pg. 33, left column, 2nd paragraph, lines 7-17), wherein said measures to avoid said disease outbreak (Sachs: pg. 70) include but are not limited to administering vaccinations and other treatment regimes (Brown: column 1 lines 25-35) as dictated by method.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is (703) 305-0365, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (703) 305-9704. The fax number for the group is 703-872-9306.

Any inquires of general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (703) 305-3900.

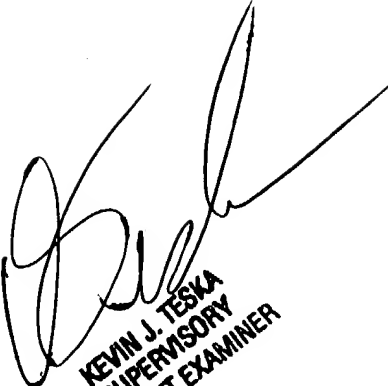
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July 19, 2004

THS



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